a coil sitting flush on the sensitive trigone could cause more discomfort than one that has extra length in the bladder. As such, the impact of stent positioning on patient outcomes remains an area ripe for investigation.

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ENDOUROLOGY & LAPAROSCOPY

Open versus laparoscopic live donor nephrectomy: a focus on the safety of donors and the need for a donor registry

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J Urol. 2007; 178: 1860-6

Purpose: A review of the existing literature showed that the subject of live donor nephrectomy is a seat of underreporting and underestimation of complications. We provide a systematic comparison between laparoscopic and open live donor nephrectomy with special emphasis on the safety of donors and grafts.
Materials and Methods: The PubMed(R) literature database was searched from inception to October 2006. A comparison was made between laparoscopic and open live donor nephrectomy regarding donor safety and graft efficacy.
Results: The review included 69 studies. There were 7 randomized controlled trials, 5 prospective nonrandomized studies, 22 retrospective controlled studies, 26 large (greater than 100 donors), retrospective, noncontrolled studies, 8 case reports and 1 experimental study. Most investigators concluded that, compared to open live donor nephrectomy, laparoscopic live donor nephrectomy provides equal graft function, an equal rejection rate, equal urological complications, and equal patient and graft survival. Analgesic requirements, pain data, hospital stay and time to return to work are significantly in favor of the laparoscopic procedure. On the other hand, laparoscopic live donor nephrectomy has the disadvantages of increased operative time, increased warm ischemia time and increased major complications requiring reoperation. In terms of donor safety at least 8 perioperative deaths were recorded after laparoscopic live donor nephrectomy. These perioperative deaths were not documented in recent review articles. Ten perioperative deaths were reported with open live donor nephrectomy by 1991. No perioperative mortalities have been recorded following open live donor nephrectomy since 1991. Regarding graft safety, at least 15 graft losses directly related to the surgical technique of laparoscopic live donor nephrectomy were found but none was emphasized in recent review articles. The incidence of graft loss due to technical reasons in the early reports of open live donor nephrectomy was not properly documented in the literature.
Conclusions: We are in need of a live organ donor registry to determine the combined experience of complications and long-term outcomes, rather than short-term reports from single institutions. Like all other new techniques, laparoscopic live donor nephrectomy should be developed and improved at a few centers of excellence to avoid the loss of a donor or a graft.

Editorial Comment
The author performed a very comprehensive review of the literature (live donor laparoscopic nephrectomy) revealing only 7 randomized trials that concluded that when compared to open live donor nephrectomy, laparoscopic

live donor nephrectomy provides equal graft function at 1 year, an equal rejection rate, equal urological complications, and equal patient and graft survival. Analgesic requirements, pain data, hospital stay and time to return to work are significantly in favor of the laparoscopic procedure.
On the other hand, laparoscopic live donor nephrectomy has the disadvantages of increased operative time, increased warm ischemia time and increased major complications requiring reoperation. These complications may decrease with more operative experience. The learning curve for laparoscopic procedures has been extensively discussed in the literature. It is pivotal that better simulation, education models can be created to decrease the challenging issues of learning this new operative technique.

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Prospective radiographic followup after en bloc ligation of the renal hilum

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J Urol. 2007; 178: 1888-91

Purpose: We determined the risk of arteriovenous fistula after en bloc ligation of the renal hilum.
Materials and Methods: A prospective evaluation of all patients who underwent en bloc ligation of the renal hilum during nephrectomy for malignant disease was performed. Pertinent operative data were recorded and patients were followed for clinical evidence of arteriovenous fistula formation, including hypertension, abdominal bruit and new onset congestive heart failure. Patients with at least 12 months of followup underwent computerized tomographic arteriography to assess arteriovenous fistula formation.
Results: A total of 94 patients underwent en bloc renal hilar ligation during open (43) and laparoscopic (51) nephrectomy using a 45 mm titanium endovascular stapler. Of this cohort 11 patients were lost to followup and 3 died of disease. The remaining 80 patients were followed an average of 35.2 months with no clinical evidence of arteriovenous fistula formation. Specifically there was no statistically significant difference in preoperative and postoperative blood pressure ($p = 0.18$ and 0.62, respectively), no evidence of abdominal bruit on examination and no new onset congestive heart failure. A total of 32 had increased serum creatinine and, therefore, they were excluded from followup computerized tomographic arteriography. Eight patients had a followup of less than 1 year and they were not yet eligible for evaluation. In the 40 patients who underwent computerized tomographic arteriography no fistulas were noted.
Conclusions: Based on clinical followup and prospective radiographic evaluation there appears to be a low risk of arteriovenous fistula formation after en bloc ligation of the renal hilum using a titanium endovascular stapler.

Editorial Comment

The authors should be congratulated to perform this prospective study. The first case of fistula formation after en bloc ligation of the renal pedicle was reported by Hollingsworth (1934) in a patient with tuberculosis renal disease. Few other cases of fistula formation after en bloc ligation of the renal pedicle were reported. Approximately 60 case reports of fistula formation after mass ligation of the renal pedicle were published of which most developed in the setting of infection or inflammation.

The authors performed the “en bloc” endovascular renal hilar ligation using endovascular staplers during open and hand assisted laparoscopic nephrectomies. One should be careful and aware of possible misfiring and

different types of laparoscopic endovascular staplers so possible complications can be minimized or completely avoided.

In summary, “en bloc” renal hilar ligation using endovascular staplers could be considered in cases of renal cell carcinoma when the absence of infection and/or severe inflammation may contribute for possible arterio-venous fistula formation.

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IMAGING

Combined T2-weighted and diffusion-weighted MRI for localization of prostate cancer

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AJR Am J Roentgenol. 2007; 189: 323-8

Objective: The objective of our study was to compare T2-weighted MRI alone and T2 combined with diffusion-weighted imaging (DWI) for the localization of prostate cancer.
Subjects and Methods: T2-weighted imaging and DWI (b value = 600 s/mm2) were performed in 49 patients before radical prostatectomy using an endorectal coil at 1.5 T in this prospective trial. The peripheral zone of the prostate was divided into sextants and the transition zone into left and right halves. T2 images alone and then T2 images combined with apparent diffusion coefficient (ADC) maps (T2 + DWI) were scored for the likelihood of tumor and were compared with whole-mount histology results. Fixed window and level settings were used to display the ADC maps. Only tumors with an area of more than 0.13 cm2 (> 4 mm diameter) and a Gleason score of > or = 6 were considered significant. The area under the receiver operating characteristic curve (A(z)) was used to assess accuracy.
Results: In the peripheral zone, the A(z) value was significantly higher ($p = 0.004$) for T2 plus DWI (A(z) = 0.89) than for T2 imaging alone (A(z) = 0.81). Performance was poorer in the transition zone for both T2 plus DWI (A(z) = 0.78) and T2 (A(z) = 0.79). For the whole prostate, sensitivity was significantly higher ($p < 0.001$) with T2 plus DWI (81% [120/149]) than with T2 imaging alone (54% [81/149]), with T2 plus DWI showing only a slight loss in specificity compared with T2 imaging alone (84% [204/243] vs 91% [222/243], respectively).
Conclusion: Combined T2 and DWI MRI is better than T2 imaging alone in the detection of significant cancer (Gleason score > or = 6 and diameter > 4 mm) within the peripheral zone of the prostate.

Editorial Comment

Localization of prostate cancer is important for adequate tumor staging, adequate targeting for transrectal ultrasound biopsy and for adequate conservative therapies such as intensity-modulated radiation therapy, interstitial brachytherapy and cryosurgery. Endorectal magnetic resonance techniques that can be used for identification of prostate cancer are conventional T2-weighted image, 3D-spectroscopy, diffusion-weighted image (DWI) and dynamic contrast enhanced technique (DCE). Since the appearance of cancer on T2-weighted image is not specific, several studies have demonstrated that the combination of endorectal MR imaging and